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Applicant: Ultimate Support Systems, Inc.
Inventors: Donald H. Eason
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Title: Telescoping Member Methods and Apparatus
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AMENDMENT UNDER ARTICLE 34

Pursuant to Article 34, the Applicants hereby amend the description in the above-referenced application and request that the Examiner consider the Article 34 amendments in drawing up the International Preliminary Examination Report. This Amendment Under Article 34 is filed alongside a Reply to Written Opinion and a Demand for Preliminary Examination and is to be considered a part of each. The attached replacement sheets 4 and 5 for the Article 34 amendments are submitted as Exhibit A; Exhibit B is an indication of the differences between the amended description pages and the description pages as originally filed. Exhibits A and B are hereby incorporated as part of this response.

A. AMENDMENT and REPLACEMENT PAGES

Please replace sheets 4 and 5, inclusive, as originally filed with the attached replacement pages 4 and 5 (see Exhibit A). The Applicants wish the Article 34 amendments to be taken into account by the examiner in the preparation of the International Preliminary Examination Report. As indicated, these Article 34 amendments are submitted with the demand for examination, also submitted herewith.

B. INDICATION OF DIFFERENCES

As required by PCT Rules, this submission indicates the differences that exist with respect to the amendments made herein and the application as pending before this

submission. These differences are shown in Exhibit B – Indication of Differences – Amendments to the Specification. The Applicant indicates that page 4, line 11 and page 5, lines 6, 8, and 10 have been amended. Of course, in Exhibit B, strikethrough indicates text to be deleted while underlining indicates text to be added.

The indicated foregoing amendments are made merely to correct formality type errors and do not go beyond the disclosure in the international application as originally filed. They should be considered in establishing the first international examination report.

C. CONCLUSION

The above changes should be considered and included in the examination of the application. A favorable examination report as to all pending claims is requested.

Dated this 16th day of February, 2006.

Respectfully Submitted,
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edge of the larger elongated member. Additionally, for purposes relative to clarity of description of the inventive technology, the third portion of the first elongated member may be the to have a first longitudinal axis (13) and the at least a fourth portion of the larger elongated member may have a second longitudinal axis (14). It should be noted that
5 the term "at least a fourth portion" may be used because, indeed, it may be that in some embodiments of the inventive technology the entire larger elongated member may have nested within it the third portion of the first elongated member.

The inventive technology may include a compression enhancement element that is
10 situated so that, upon its activation (e.g., upon rotation of a clamping lever (15) of a clamp (16) having an eccentric cam (17) and/or sufficient rotation of a threaded bolt as in cases where there is no clamping lever (see Fig. 7), it forces the larger elongated member compression surface towards the larger elongated member, and the first elongated member compression surface towards a site (18) on the first elongated member that is not within
15 the larger elongated member, thereby retaining the first elongated member in fixed position relative to the larger elongated member. The term "forces...towards" describes that which occurs whenever a compressive force is generated; the term is broad enough to cover the case where each of the aforementioned compression surfaces are either in direct contact with a respective elongated member or not. Similarly, one part may surround or
20 partially surround another (or be around or be partially around another) notwithstanding the absence of direct contact between the two parts. Of course, direct contact may be absent where there is established within at least part of the larger elongated member (e.g., a second portion thereof) an annular gap filler (19) whose purpose may be to fill a space between part of the larger elongated member and part of the first elongated member nested
25 within. Often, however, the first elongated member compression surface is adequately sized (e.g., small enough in diameter) to directly contact the first elongated member, rendering an annular gap filler unnecessary. Of course, the use of significantly differently sized tubes as part of a telescoping apparatus is one way in which this problem may arise. It should be understood that, as used herein, annular does not require a cross-section
30 having concentric or even circular inner and/or outer surface cross-section shapes. Indeed, as but one example, the inner shape may be vertically ribbed such that it contacts the first elongated member at only intermittent vertical sections (e.g., see Fig. 2).

A relative motion obstruction element (4) may also be part of the inventive
35 apparatus and may be adapted to prevent only axial and rotational motion of the

compression sleeve element relative to the larger elongated member. The relative motion obstruction element may be established as part of the compression sleeve element and the larger elongated member. As such, it may prevent motion of the compression sleeve element relative to the larger elongated member. It should be noted that the term element
5 as used in this application may describe not only one part or structure, but also a plurality of parts or structures e.g., that make up a device. As such, in at least one embodiment of the inventive technology, the relative motion obstruction element may include at least one projection (20) (e.g., a post, which may have any cross-sectional shape and which may project inwardly from the compression sleeve element), and at least one recess (21) (e.g. a
10 hole) sized to receive the post, thereby preventing axial and rotational motion. Of course, a projection may be engaged with a recess upon establishment of the projection in the recess.

It should be noted also that the relative motion obstruction element is not intended
15 to prevent all types of motion of the compression sleeve element relative to the larger elongated member. Indeed, in the preferred embodiments, the relative motion obstruction element, even when engaged, does not prevent perpendicular (22) (e.g., radial) displacement of the compression enhancement element relative to the second longitudinal axis. Such perpendicular displacement is prevented by the compression enhancement
20 element when activated. That such motion is prevented by the compression enhancement element (and not by the relative motion obstruction element) may enable the compression sleeve element to be easily removed upon deactivation of and effective disengagement of the compression enhancement element. It should be noted that perpendicular displacement occurs whenever the displacement has any component in a perpendicular
25 direction.

Deactivation of the compression enhancement element connotes manipulation of the compression retention element only such that the compressive force that retains the first elongated member in fixed relative position is removed. Deactivation is a step that is
30 different and exclusive of the step of effective disengagement, discussed below. In embodiments where there is no clamping lever, deactivation may involve the sufficient loosening of a bolt to just release the compressive force that retains the first elongated member in fixed position relative to the larger elongated member. In embodiments where there is a clamping lever (see, e.g. Fig. 1), deactivation may only involve the manipulation
35 of the lever to just remove the compressive force. Even in embodiments where there is a

edge of the larger elongated member. Additionally, for purposes relative to clarity of description of the inventive technology, the third portion of the first elongated member may be the to have a first longitudinal axis (13) and the at least a fourth portion of the larger elongated member may have a second longitudinal axis (14). It should be noted that
5 the term "at least a fourth portion" may be used because, indeed, it may be that in some embodiments of the inventive technology the entire larger elongated member may have nested within it the third portion of the first elongated member.

The inventive technology may include a compression enhancement element that is
10 situated so that, upon its activation (e.g., upon rotation of a clamping lever (15) of a clamp (16) having an eccentric cam ~~(1&)~~ (17) and/or sufficient rotation of a threaded bolt as in cases where there is no clamping lever (see Fig. 7), it forces the larger elongated member compression surface towards the larger elongated member, and the first elongated member compression surface towards a site (18) on the first elongated member that is not within
15 the larger elongated member, thereby retaining the first elongated member in fixed position relative to the larger elongated member. The term "forces...towards" describes that which occurs whenever a compressive force is generated; the term is broad enough to cover the case where each of the aforementioned compression surfaces are either in direct contact with a respective elongated member or not. Similarly, one part may surround or
20 partially surround another (or be around or be partially around another) notwithstanding the absence of direct contact between the two parts. Of course, direct contact may be absent where there is established within at least part of the larger elongated member (e.g., a second portion thereof) an annular gap filler (19) whose purpose may be to fill a space between part of the larger elongated member and part of the first elongated member nested
25 within. Often, however, the first elongated member compression surface is adequately sized (e.g., small enough in diameter) to directly contact the first elongated member, rendering an annular gap filler unnecessary. Of course, the use of significantly differently sized tubes as part of a telescoping apparatus is one way in which this problem may arise. It should be understood that, as used herein, annular does not require a cross-section
30 having concentric or even circular inner and/or outer surface cross-section shapes. Indeed, as but one example, the inner shape may be vertically ribbed such that it contacts the first elongated member at only intermittent vertical sections (e.g., see Fig. 2).

A relative motion obstruction element (4) may also be part of the inventive
35 apparatus and may be adapted to prevent only axial and rotational motion of the

compression sleeve element relative to the larger elongated member. The relative motion obstruction element may be established as part of the compression sleeve element and the larger elongated member. As such, it may prevent motion of the compression sleeve element relative to the larger elongated member. It should be noted that the term element as used in this application may describe not only one part or structure, but also a plurality of parts or structures (20) e.g., that make up a device. As such, in at least one embodiment of the inventive technology, the relative motion obstruction element may include at least one projection (21) (20) (e.g., a post, which may have any cross-sectional shape and which may project inwardly from the compression sleeve element), and at least one recess (21) (e.g. a hole) sized to receive the post, thereby preventing axial and rotational motion. Of course, a projection may be engaged with a recess upon establishment of the projection in the recess.

It should be noted also that the relative motion obstruction element is not intended to prevent all types of motion of the compression sleeve element relative to the larger elongated member. Indeed, in the preferred embodiments, the relative motion obstruction element, even when engaged, does not prevent perpendicular (22) (e.g., radial) displacement of the compression enhancement element relative to the second longitudinal axis. Such perpendicular displacement is prevented by the compression enhancement element when activated. That such motion is prevented by the compression enhancement element (and not by the relative motion obstruction element) may enable the compression sleeve element to be easily removed upon deactivation of and effective disengagement of the compression enhancement element. It should be noted that perpendicular displacement occurs whenever the displacement has any component in a perpendicular direction.

Deactivation of the compression enhancement element connotes manipulation of the compression retention element only such that the compressive force that retains the first elongated member in fixed relative position is removed. Deactivation is a step that is different and exclusive of the step of effective disengagement, discussed below. In embodiments where there is no clamping lever, deactivation may involve the sufficient loosening of a bolt to just release the compressive force that retains the first elongated member in fixed position relative to the larger elongated member. In embodiments where there is a clamping lever (see, e.g. Fig. 1), deactivation may only involve the manipulation of the lever to just remove the compressive force. Even in embodiments where there is a